

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A ~~glass for use in chemical reinforcement for use in a substrate of an information recording medium comprising:~~

~~a disk, said disk being adapted to receive on a surface thereof plural layers including a recording layer and comprising a glass suitable for chemical reinforcement,~~

~~wherein said glass has having a composition comprising, denoted as mol%:~~

~~SiO₂ SiO₂~~ 47 to 70 ~~50%-67%~~

~~Al₂O₃ Al₂O₃~~ 4 to 10 ~~2%-10%~~

(where the total of ~~SiO₂ SiO₂~~ and ~~Al₂O₃ Al₂O₃~~ is 57 to 80 ~~57%-79%~~)

~~CaO~~ 2 to 25 ~~3-20%~~

~~BaO~~ 4 to 15 ~~1%-14%~~

~~Na₂O Na₂O~~ 4 to 10 ~~1%-8%~~

~~K₂O K₂O~~ 0 to 15 ~~greater than 0% to 13%~~

(where the total of ~~Na₂O Na₂O~~ and ~~K₂O K₂O~~ is 3 to 16 ~~5%-14%~~)

~~ZrO₂ ZrO₂~~ 1 to 12 ~~1%-10%~~

~~MgO~~ 0 to 10%

~~SrO~~ 0 to 15 ~~0%-10%~~

(where the ratio of the content of CaO to the total of MgO, CaO, SrO, and BaO is greater than or equal to 0.5)

~~ZnO~~ 0 to 10 ~~0%-8%~~

(where the total of MgO, CaO, SrO, BaO, and ZnO is 3 to 30 ~~4%-30%~~)

~~TiO₂ TiO₂~~ 0 to 10 ~~0%-8%~~

and the total content of the above-stated components is greater than or equal to 95 %, and

where the glass does not comprise Li₂O.

2. (currently amended and withdrawn): The ~~glass for use in chemical reinforcement substrate~~ of claim 1 characterized in that the ratio of the BaO content to the total content of MgO, CaO, SrO, and BaO is greater than or equal to 0.15.

3. (cancelled)

4. (currently amended and withdrawn): The ~~glass for use in chemical reinforcement of any of claims 1 to 3 substrate of claim 1~~ which has a Young's modulus of greater than or equal to 75 GPa.

5. (currently amended): [[A]] The substrate ~~for use in an information recording medium characterized by consisting of the glasses~~ of claim 4 and being chemically reinforced.

6. (original): The substrate for use in an information recording medium of claim 5 which employs a chemically reinforced glass in which the bending strength following heating for two hours at 570°C to is greater than or equal to 15 kgf/mm².

7. (original): A substrate for an information recording medium characterized by consisting of a chemically reinforced glass having a glass transition temperature of greater than or equal to 600°C and exhibiting a bending strength following heating for two hours at 570°C of greater than or equal to 15 kgf/mm².

8. (previously presented): The substrate for an information recording medium of claim 5 in which, when the bending strength of the glass constituting the substrate prior to chemical reinforcement is denoted as f_b and the bending strength of the glass when maintained for two hours at a temperature T [°C] (where T denotes any temperature of from 20 to 570°C) after having been chemically reinforced is denoted as f_T , the value of $(f_T - f_b)/f_b$ is greater than or equal to 0.5.

9. (original): The substrate for use in an information recording medium of claim 8, wherein the value of $(f_{20} - f_b)/f_b$ for the bending strength f_{20} at T=20°C is greater than or equal to 1.

10. (previously presented): The substrate for use in an information recording medium of claim 5, wherein the average coefficient of linear expansion at 30 to 300°C of the glass constituting the substrate is greater than or equal to $60 \times 10^{-7} \text{K}^{-1}$.

11. (previously presented): The substrate for use in an information recording medium of claim 5 that is chemically reinforced by an ion exchange treatment in which sodium ions are replaced with potassium ions.

12. (previously presented): The substrate for use in an information recording medium of claim 5 that is employed as a substrate for an information recording medium employed in a perpendicular magnetic recording system.

13. (previously presented): An information recording medium characterized by comprising an information recording layer on the substrate for an information recording medium of claim 5.

14. (original): The information recording medium of claim 13 that is a magnetic recording medium employed in a perpendicular magnetic recording system.

15. (previously presented): The information recording medium of claim 13 characterized by being manufactured by subjecting a substrate having an information recording layer to a heat treatment at a maximum temperature of 300 to 600°C.

16. (cancelled)

17. (previously presented): The substrate for an information recording medium of claim 7 in which, when the bending strength of the glass constituting the substrate prior to chemical reinforcement is denoted as f_b and the bending strength of the glass when maintained for two hours at a temperature T [°C] (where T denotes any temperature of from 20 to 570°C) after having been chemically reinforced is denoted as f_T , the value of $(f_T - f_b)/f_b$ is greater than or equal to 0.5.

18. (previously presented): The substrate for use in an information recording medium of claim 7, wherein the average coefficient of linear expansion at 30 to 300°C of the glass constituting the substrate is greater than or equal to $60 \times 10^{-7} \text{K}^{-1}$.

19. (previously presented): The substrate for use in an information recording medium of claim 7 that is chemically reinforced by an ion exchange treatment in which sodium ions are replaced with potassium ions.

20. (previously presented): The substrate for use in an information recording medium of claim 7 that is employed as a substrate for an information recording medium employed in a perpendicular magnetic recording system.

21. (previously presented): An information recording medium characterized by comprising an information recording layer on the substrate for an information recording medium of claim 7.

22. (previously presented): The information recording medium of claim 14 characterized by being manufactured by subjecting a substrate having an information recording layer to a heat treatment at a maximum temperature of 300 to 600°C.

23. (cancelled)

24. (currently amended): The glass substrate as recited in claim 1, wherein the recited amount of BaO in the glass is operative to increase the coefficient of thermal expansion and wherein BaO has less effect on Young's modulus than each of CaO and MgO.

25. (currently amended): The glass substrate as recited in claim 1, wherein the ratio of CaO/(MgO + CaO + SrO + BaO) in the glass is greater than or equal to 0.55.

26. (currently amended): The glass substrate as recited in claim 1, wherein the ratio of CaO/(MgO + CaO + SrO + BaO) in the glass is greater than or equal to 0.6.

27. (cancelled)